INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

July 2, 2004

TO: Interested Parties / Applicant

RE: SCA North America Packaging Divison / 091-18823-00079

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of a Title V operating permit or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impractible to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNTV-PMOD.doc 9/16/03

July 2, 2004

Mr. Robert Niklewicz
SCA North America Packaging Division
P. O. Box 448
New Brighton, PA 15066

Re: 091-18823
Second Minor Permit Modification to
Part 70 No.: T 091-7666-00079

Dear Mr. Niklewicz:

SCA North America Packaging Division was issued a Part 70 permit on October 14, 1999, for the operation of a polystyrene shape molding operation. A letter requesting changes to this permit was received on March 5, 2004. Pursuant to the provisions of 326 IAC 2-7-12 a minor permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the addition of five (5) molding presses and thirteen (13) pre-puff storage silos.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Madhurima D. Moulik, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call at (800) 451-6027, press 0, extension 3-0868, or dial (317) 233-0868.

Sincerely,
Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
mm
cc: File - LaPorte County
U.S. EPA, Region V
LaPorte County Health Department
Northwest Regional Office
Air Compliance Section Inspector – Rick Massoels
Compliance Data Section
Administrative and Development

PART 70 OPERATING PERMIT
and ENHANCED NEW SOURCE REVIEW
OFFICE OF AIR QUALITY

SCA North America Packaging Division
955 Woodland Avenue
Michigan City, Indiana 46360

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T091-7666-00079	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Management	Issuance Date: October 14, 1999 Expiration Date: October 14, 2004

First Administrative Amendment No.: 091-11627	Issuance Date: January 18, 2000
Second Administrative Amendment No.: 091-13602	Issuance Date: January 17, 2001
First Significant Permit Modification No.: 091-14496	Issuance Date: November 20, 2001
Permit Reopen No.: 091-13378	Issuance Date: February 13, 2002
Third Administrative Amendment No.: 091-15889	Issuance Date: March 20, 2002
Second Significant Permit Modification No.: 091-15559	Issuance Date: July 22, 2001
First Minor Permit Modification No.: 091-15930	Issuance Date: October 4, 2002
Third Significant Permit Modification No.: 091-16694	Issuance Date: July 30, 2003

Second Minor Permit Modification No.: 091-18823	Pages Affected: 7, 30, 31, 31a, 31b
Issued by: Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:July 2, 2004

28) One (1) molding press, model number 68, identified as P001, rated at 150 pounds per hour, and exhausting to stack S-33.

29) Sixteen (16) post expansion storage silos, identified as F28, each with a total maximum storage capacity of 972 pounds.

30) Two (2) molding presses, model type Kurtz K813, identified as MP28 and PM29, each rated at 150 pounds per hour;

31) Five (5) Kurtz molding presses, constructed in 2004, with a total rated capacity of 2600 pounds per hour, exhausting to an undetermined stack.

32) One (1) Hirsch 6000 polystyrene pre-expander, identified as PE4, rated at 1500 pounds per hour and exhausting at stack S-36.

33) Thirteen (13) pre-puff storage silos, each with storage capacity of 972 pounds.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

1) One (1) boiler, model number CB 700-200, fueled by natural gas, heat input rate is 8.4 MMBtu per hour and exhausting to stack S-2.

2) Welding operations consisting of the following equipment:

(a) Miller matic wire welder, identified as MS-1;
(b) Small torch, identified as MS-2;
(c) Dialarc stick welder, identified as MS-3;
(d) Dialarc stick welder, identified as MS-4;
(e) Miller matic wire welder, identified as MS-5;
(f) Medium torch, identified as MS-6;
(g) Miller matic wire welder, identified as MS-7;
(h) Medium torch set, identified as MS-8;
(i) Dialarc stick welder, identified as MS-9; and
(j) Medium torch set, identified as MS-10.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22).

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

One (1) molding press, model number 68, rated at 150 pounds per hour, and exhausting to stack S-21.

One (1) molding press, model number BR 620, rated at 100 pounds per hour, and exhausting to stack S-23.

One (1) molding press, model number BR 620, rated at 100 pounds per hour, and exhausting to stack S-24.

One (1) molding press, model number BR 620, rated at 100 pounds per hour, and exhausting to stack S-25.

One (1) molding press, model number BR 620, rated at 100 pounds per hour, and exhausting to stack S-26.

One (1) molding press, model number BR 620, rated at 100 pounds per hour, and exhausting to stack S-27.

One (1) molding press, model number 1317, identified as P001, rated at 600 pounds per hour, and exhausting to stack S-28.

One (1) molding press, model number 813, identified as P001, rated at 300 pounds per hour, and exhausting to stack S-29.

One (1) molding press, model number 68, identified as P001, rated at 150 pounds per hour, and exhausting to stack S-30.

One (1) molding press, model number 68, identified as P001, rated at 150 pounds per hour, and exhausting to stack S-31.

One (1) molding press, model number 68, identified as P001, rated at 150 pounds per hour, and exhausting to stack S-32.

One (1) molding press, model number 68, identified as P001, rated at 150 pounds per hour, and exhausting to stack S-33.

Sixteen (16) post expansion storage silos, identified as F28, each with a total maximum storage capacity of 972 pounds.

Two (2) molding presses, model type Kurtz K813, identified as MP28 and PM29, each rated at 150 pounds per hour.

Five (5) Kurtz molding presses, constructed in 2004, with a total rated capacity of 2600 pounds per hour, exhausting to an undetermined stack.

One (1) Hirsch 6000 polystyrene pre-expander, identified as PE4, rated at 1500 pounds per hour and exhausting at stack S-36.

Thirteen (13) pre-puff storage silos, each with storage capacity of 972 pounds.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.2.1 Prevention of Significant Deterioration [326 IAC 2-2 and 40 CFR 52.21]

Pursuant to CP 091-4823-00079, issued on March 29, 1996, the molding process and the sixteen (16) post expansion storage silos shall use no more than 26.77 tons per month of pentane (VOC) (at 77.5% flash off). This usage limit is required to limit the potential to emit of VOC to 20.75 tons per month. Compliance with this limit makes the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21 not applicable.

D.2.2 New Facilities, General Reduction Requirements [326 IAC 8-1-6]

Pursuant to CP 091-4823-00079, issued on March 29, 1996, the best available control technology (BACT) for the expandable polystyrene molding process shall be the use of the lowest available pentane content material without add-on control equipment. Also, the Permittee shall continuously search for material with lower pentane and VOC content. The applicant shall submit an annual report within 30 days of January 1 describing the search conducted during the past twelve (12) months, results of the previous year's search, and schedule of switching to material with lower pentane and VOC content if the material is available. Compliance with this condition will fulfill the requests of 326 IAC 8-1-6.

D.2.3 New Facilities, General Reduction Requirements [326 IAC 8-1-6]

BACT - The OAM, IDEM has determined the BACT for the pre expander, rated at 500 pounds per hour and # 2 pre expander, rated at 1500 pounds per hour shall be as follows:

(a) The molding compound shall contain a maximum average of 5.5% pentane.

(b) Polyfoam will continue to work with resin suppliers to seek to obtain resins with lower VOC content. Polyfoam will also continue to evaluate the alternate materials.

(c) The Permittee shall continuously search for material with lower pentane and VOC content. The applicant shall submit an annual report within 30 days of January 1 describing the search conducted during the past twelve (12) months, results of the previous year's search, and schedule of switching to material with lower pentane and VOC content if the material is available. Compliance with this condition will fulfill the requests of 326 IAC 8-1-6.

D.2.4 New Facilities, General Reduction Requirements [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6 (New Facilities, General Reduction Requirements), the Best Available Control Technology (BACT) for the six (6) molding presses, shall be the following:

(a) The VOC usage for the six (6) molding presses, shall be limited to 155.22 tons per twelve (12) consecutive month period.

(b) The molding compound shall contain a maximum average of 5.5% pentane.

(c) The Permittee shall continuously search for material with lower pentane and VOC content. The applicant shall submit an annual report within 30 days of January 1 describing the search conducted during the past twelve (12) months, results of the previous year's search, and schedule of switching to material with lower pentane and VOC content if the material is available. Compliance with this condition will fulfill the requests of 326 IAC 8-1-6.

D.2.5 Volatile Organic Compounds (VOC) [326 IAC 2-7-10.5] [326 IAC 8-1-6]

Any change or modification that will cause VOC emissions from the molding press identified as P001, to be equal to or greater than 25 tons per year shall require IDEM, OAM approval before such changes can take place.

D.2.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

(a) The total input usage of volatile organic compounds (VOC) at the pre-expander, identified as PE4, shall be limited to 103.75 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Based on a VOC flash off factor of twenty-four percent (24%), this will limit VOC emissions to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Any change or modification that will cause VOC emissions from the pre-expander, identified as PE4, to be equal to or greater than twenty-five (25) tons per year shall require IDEM, OAQ approval before such changes can occur.

(c) Any change or modification that will cause VOC emissions from any of the five (5) Kurtz molding presses (installed in 2004) to be equal to or greater than twenty-five (25) tons per year shall require IDEM, OAQ approval before such changes can occur.

(d) Any change or modification that will cause VOC emissions from any of the thirteen (13) pre-puff storage silos (installed in 2004) to be equal to or greater than twenty-five (25) tons per year shall require IDEM, OAQ approval before such changes can occur.

This limit shall render the requirements of 326 IAC 8-1-6 (BACT) not applicable.

Compliance Determination Requirements

D.2.7 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM, the emission factor used to determine the VOC emissions shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.8 Record Keeping Requirements

(a) To document compliance with Conditions D.2.1, D.2.5 and D.2.6, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.2.1 and D.2.5.

(1) The amount and VOC content of expandable polystyrene molding compound. Records shall include purchase orders, invoices, and manufacturer's Certificate of Analysis necessary to verify the type and amount used;

(2) A log of the dates of use;

(3) The total VOC usage for each month; and

(4) The weight of VOCs emitted for each compliance period.

(b) To document compliance with Condition D.2.3, the Permittee shall maintain records of the average monthly pentane content which shall be less than 5.5%.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.9 Reporting Requirements

(a) A quarterly summary of the information to document compliance with Condition D.2.1, D.2.4 and D.2.6 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

(b) To document compliance with Condition D.2.2, D.2.3 and D.2.4 the Permittee shall submit an annual report within 30 days of January 1 describing the search conducted during the past twelve (12) months, results of the previous years search, and schedule of switching material with lower pentane and VOC content if the material is available.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a Minor Permit Modification to
a Part 70 Operating Permit

Source Name:	**SCA North America Packaging Division**
Source Location:	**955 Woodland Avenue, Michigan City, IN 46360**
County:	**LaPorte**
SIC Code:	**3086**
Operation Permit No.:	**T091-7666-00079**
Operation Permit Issuance Date:	**October 14, 1999**
Source Modification No.:	**091-18628**
Permit Modification No.:	**091-18823**
Permit Reviewer:	**Madhurima D. Moulik**

On May 31, 2004, the Office of Air Quality (OAQ) had a notice published in the News Dispatch in Michigan City, Indiana, stating that SCA North America Packaging had applied for a Minor Permit Modification to a Part 70 Operating Permit. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comment 1:

On April 28, 2004, a representative of LaPorte Environmental Technical Assistance Group submitted a letter to the Office of Air Quality. The comments have been summarized below:

SCA North America Packaging should inform the surrounding businesses and elementary schools of the hazards of pentane, a Volatile Organic Compound (VOC). LaPorte County HAZMAT and EMS agencies should also be informed of this VOC production since the immediate area houses a large elderly residence and an elementary school.

Response 1:

There is no legal requirement for existing sources to provide notice to the public when making changes of this nature. Office of Air Quality (OAQ) has issued a letter on March 11, 2004, to the Mayor of Michigan City, with information regarding the source and permit modification applications by the source. Pentane is not regulated under Clean Air Act's Chemical Accident Prevention Provisions (40 CFR 68) because it is not listed in 40 CFR 68.130.

The permit modification No. 091-18823-00079 was on public notice starting May 31, 2004 and information related to the source and permit modification was available to the public at a local library and through OAQ.

No change has been made as a result of this comment.

Comment 2:

SCA North America should try to recover the Pentane released and recycle the recovered product, for example by selling it to NASA for use in Solid Fuel Program, as a gasoline "blendstock", mixed with paraffin and soot black for use in ignition sources, as an additive to grain alcohol for farm tractors, or mixed with butane, liquid petroleum or natural gas to power a thermal heating device.

Response 2:

OAQ has discussed the option of pentane recovery with SCA North America Packaging. None of the recovery options appear to be realistic or feasible from the company's standpoint. Therefore, it is not possible to pursue the proposed options.

No change has been made as a result of this comment.

Comment 3:

On March 26, 2004, SCA North America Packaging submitted comments on the proposed Minor Permit Modification to a Part 70 permit. The summary of the comments is as follows:

> Testing requirement in Section D.2.7 should be deleted (~~struck-out~~) and replaced with the language shown below (**bolded**):
>
> D.2.7 Testing Requirements [326 IAC 2-7-6(1)]
>
> ~~Within 90 days after issuance of Minor Permit Revision No. 091-18823-00079, the Permittee shall perform testing of the five (5) Kurtz molding presses (installed in 2004) to validate the 0.0077 lb VOC emitted/lb beads overall emission factor used to determine the VOC emissions utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C- Performance Testing.~~
>
> **The Permittee is not required to test this facility by this permit. However, IDEM may require testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the VOC limit specified in Condition D.2.1 and D.2.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.**

Response 3:

> US EPA Guidance "Control of VOC Emissions From Polystyrene Foam Manufacturing", EPA-450/3-90-020, August, 1990, establishes 15% as the overall amount retained in the final product after 48 hours. Since SCA North America Packaging Division is claiming a percent retention greater than what is established in the EPA guidance, the source is required to perform testing to determine the overall percent pentane retained and demonstrate that the lower emission factor is valid.
>
> On April 23, 2004, SCA North America Packaging submitted a document showing test data supporting an average emission factor of 14% for molding presses, based on testing conducted at identical molding presses located in New Brighton, Pardeeville, and Las Cruces during March of 1993 and September of 1995. OAQ has determined that these test results shall fulfill the requirements of this condition. Based on the test data submitted, Condition D.2.7 was modified to:

D.2.7 Testing Requirements [326 IAC 2-7-6(1**),(6)][326 IAC 2-1.1-11]**

~~Within 90 days after issuance of Minor Permit Revision No. 091-18823-00079, the Permittee shall perform testing of the five (5) Kurtz molding presses (installed in 2004) to validate the 0.0077 lb VOC emitted/lb beads overall emission factor used to determine the VOC emissions utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C- Performance Testing.~~

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM, the emission factor used to determine the VOC emissions shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

On April 28, 2004, SCA North America Packaging submitted the following comments:

Comment 4:

Add "Manufacturer's Certificate of Analysis" to the list of records in Section D.2.8(a)(1) - Record Keeping Requirements. The Certificate of Analysis that accompanies each lot number is the documentation of the VOC content in that lot. The MSDS is not used in determining the VOC content, and could be removed from the list.

Response 4:

Section D.2.8 is modified as follows:

(a) To document compliance with Conditions D.2.1, D.2.5 and D.2.6, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.2.1 and D.2.5.

(1) The amount and VOC content of expandable polystyrene molding compound. Records shall include purchase orders, invoices, **and manufacturer's Certificate of Analysis** ~~and material safety data sheets (MSDS)~~ necessary to verify the type and amount used;

Comment 5:

SCA North America Packaging submitted the following comments as clarification to the Technical Support Document.

Emission Calculations: A discussion point claims that SCA North America Packaging is "claiming a percent retention greater than the 15% retention reported in the U. S. EPA guidance". This 15% that the U. S. EPA reports is retention reported after the entire process of pre-expansion, pre-puff storage, molding and a short finished goods storage period. SCA North America Packaging is only claiming 3% retention based on our most recent data for material and using a more conservative storage period of 14 to 28 days.

Response 5:

The retention rate as submitted by SCA North America Packaging was used to estimate the emissions from the molding presses. The U. S. EPA guidance provides a retention rate for the entire process as claimed by SCA North America Packaging. However, the U. S. EPA guidance does not break

down the emission factor (or retention rate) for each individual process. Therefore, based on the U. S. EPA guidance, OAQ cannot determine the exact emission factor or retention rate for the molding process alone. For this reason, the above statement was included in the Technical Support Document.

No change has been made as a result of this comment.

Comment 6:

SCA North America Packaging's emission factors for storage silos are not based on AP-42. The emission factors are based solely on factors developed by SCA North America Packaging. Emission factors for specialty materials are based on data developed by the raw material manufacturers and SCA North America Packaging.

Response 6:

The storage silos at this facility do not have any associated testing requirements for validating the emission factors as submitted by the source. Due to this fact, OAQ has used emission factors available in AP-42 for estimating the emissions from the new storage silos.

No change has been made as a result of this comment.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Minor Source Modification and a Minor Permit Modification to a Part 70 Operating Permit

Source Background and Description

Source Name:	**SCA North America Packaging Division**
Source Location:	**955 Woodland Avenue, Michigan City, IN 46360**
County:	**LaPorte**
SIC Code:	**3086**
Operation Permit No.:	**T091-7666-00079**
Operation Permit Issuance Date:	**October 14, 1999**
Source Modification No.:	**091-18628**
Permit Modification No.:	**091-18823**
Permit Reviewer:	**Madhurima D. Moulik**

The Office of Air Quality (OAQ) has reviewed a modification application from SCA North America Packaging Division relating to the operation of a polystyrene shape molding operation.

History

On March 5, 2004, SCA North America Packaging Division submitted an application to the OAQ requesting to add five (5) molding presses and thirteen (13) pre-puff storage silos to their existing plant. SCA North America Packaging Division was issued a Part 70 permit on October 14, 1999.

New Emission Units and Pollution Control Devices

The source consists of the following new emission units and pollution control devices:

(1) Five (5) Kurtz molding presses, constructed in 2004, with a total rated capacity of 2600 pounds per hour, exhausting to an undetermined stack.

(2) Thirteen (13) pre-puff storage silos, each with a storage capacity of 972 pounds.

Existing Approvals

The source was issued a Part 70 Operating Permit T091-7666-00079 on October 14, 1999. The source has since received the following:

(a) First Administrative Amendment No. 091-11627, issued on January 18, 2000;
(b) First Reopening No. 091-13378, issued on February 13, 2002;
(c) Second Administrative Amendment No. 091-13602, issued on January 17, 2001;
(d) First Significant Permit Modification No. 091-14496, November 20, 2001;
(e) Third Administrative Amendment No.: 091- 15449, issued on March 20, 2002;
(f) Second Significant Permit Modification No.: 091-15559, issued on July 22, 2002;
(g) First Minor Permit Modification No.: 091-15930, issued on October 10, 2002; and
(h) Third Significant Permit Modification No.: 091-16694, issued on July 30, 2003.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temp (^{o}F)
S-3	Unit B-3	30.0	2.0	3300	300-350
Drain Vent	Five New Presses	30.0	0.33	1000	160-220

Recommendation

The staff recommends to the Commissioner that the Minor Source Modification and Minor Permit Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on March 5, 2004.

Emission Calculations

Total capacity of five (5) new Kurtz K813 molding presses = 2600 lb/hr.

Maximum pentane (VOC) content of material used = 5.5%

VOC loss rate from the molding press = 14% (based on loss rate used for similar presses, see TSD for Significant Source Modification No.: 091-14438)

US EPA Guidance "Control of VOC Emissions From Polystyrene Foam Manufacturing", EPA-450/3-90-020, August, 1990, establishes 15% as the overall amount retained in the final product after 48 hours. Since SCA North America Packaging Division is claiming a percent retention greater than what is established in the EPA guidance, the source will be required to perform testing to determine the overall percent pentane retained and demonstrate that the lower emission factor is valid.

0.055 lb pentane/lb beads * 0.14 lb VOC emitted/lb pentane = 0.0077 lb VOC emitted/lb beads

Therefore, potential to emit of **VOC**

= 2600 lb/hr x 0.055 x 0.14 x 8760 hr/yr x 1 ton/2000 lb = **87.7 tpy**

Storage Silos:

Emission factors are based on AP-42 [Table 6.6.3-3 – Emission Factors for Expandable Polystyrene, 9/95].

Storage vents loss (VOC) = 1.3 g/kg of product.

Maximum usage rate of polystyrene = 300 lb/hr

Therefore, **PTE of VOC** = 1.3 g VOC/kg x 300 lb/hr x 1 kg/2.2 lb = 177.3 g VOC/hr

= 0.177 kg VOC/hr x 2.2 lb/1 kg x 1 ton/2000 lb x 8760 hr/yr = **1.7 tpy**

Potential to Emit of the Source Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated

as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential to Emit (tons/yr)
PM	Negligible
PM-10	Negligible
SO_2	Negligible
VOC	89.4
CO	Negligible
NO_x	Negligible

Justification for the Modification

The Part 70 Operating permit is being modified through a Part 70 Minor Source Modification and a Minor Permit Modification. The source modification is being performed pursuant to 326 IAC 2-7-10.5(d)(9), which states in part that a minor source modification is appropriate for modifications that "has a potential to emit greater than the thresholds under subdivision (4) that adds an emissions unit or units of the same type that are already permitted and that will comply with the same applicable requirements and permit terms and conditions as the existing emission unit or units, except if the modification would result in a potential to emit greater than the thresholds in 326 IAC 2-2 or 326 IAC 2-3". Additionally, the Part 70 permit will be modified through a Minor Permit Modification pursuant to 326 IAC 326 IAC 2-7-12(b)(1), which states that a minor permit modification is appropriate for modifications that "do not violate any applicable requirements" and "do not involve significant changes to existing monitoring, reporting, or record keeping requirements in the Part 70 permit".

The addition of the new molding presses and storage silos meet the above requirements. Therefore, a Minor Source Modification and a Minor Permit Modification will be issued.

County Attainment Status

The source is located in LaPorte County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. LaPorte County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

(b) LaPorte County has been classified as attainment or unclassifiable for all other criteria pollutants, Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

Federal Rule Applicability

(a) There is no New Source Performance Standard, 326 IAC 12 (40 CFR 60) applicable to the new molding presses and storage silos.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) applicable to the new molding presses and storage silos.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This source is still not a major source because this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, and the source-wide volatile organic compounds are limited to less than 250 tons per twelve consecutive month period. The source has requested that the emission limit remain unchanged after this source modification. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

All other state rule applicabilities remain unchanged.

State Rule Applicability – Individual Facilities

326 IAC 6-3-2 (Process Operations)

The five (5) new molding presses are not subject to 326 IAC 6-3-2 (Process Operations) because they do not emit any PM.

The thirteen (13) new storage silos are not subject to 326 IAC 6-3-2 (Process Operations) because they do not emit any PM.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements)

The potential VOC emissions of each of the five (5) new Kurtz molding presses are less than 25 tons per year. Therefore, 326 IAC 8-1-6 does not apply.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the approporiate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

There are no compliance requirements for the equipment covered under this approval.

Conclusion

This Minor Source Modification and Minor Permit Modification shall be subject to the conditions of the attached Minor Source Modification No. 091-18628 and Minor Permit Modification No. 091-18823.

CHANGES TO THE PART 70 PERMIT

(1) The facility description in sections A.2 and D.2 are modified as follows (~~strikeout~~ to show deletions and **bold** to show additions):

(30) Two (2) molding presses, model type Kurtz K813, identified as MP28 and PM29, each rated at 150 pounds per hour;

(31) Five (5) Kurtz molding presses, constructed in 2004, with a total rated capacity of 2600 pounds per hour, exhausting to an undetermined stack.

(3~~1~~**2**) One (1) Hirsch 6000 polystyrene pre-expander, identified as PE4, rated at 1500 pounds per hour and exhausting at stack S-36.

(33) Thirteen (13) pre-puff storage silos, each with storage capacity of 972 pounds.

(2) Section D.2.5 is modified as follows:

D.2.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

(a) The total input usage of volatile organic compounds (VOC) at the pre-expander, identified as PE4, shall be limited to 103.75 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Based on a VOC flash off factor of twenty-four percent (24%), this will limit VOC emissions to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Any change or modification that will cause VOC emissions from the pre-expander, identified as to or greater than twenty-five (25) tons per year shall require IDEM, OAQ approval before such changes can occur.

(c) Any change or modification that will cause VOC emissions from any of the five (5) Kurtz molding presses (installed in 2004) to be equal to or greater than twenty-five (25) tons per year shall require IDEM, OAQ approval before such changes can occur.

(d) Any change or modification that will cause VOC emissions from any of the thirteen (13) pre-puff storage silos (installed in 2004) to be equal to or greater than twenty-five (25) tons per year shall require IDEM, OAQ approval before such changes can occur.

(3) Section D.2.7 is modified and the Table of Contents is changed as follows:

D.2.7 ~~Testing Requirements [326 IAC 2-7-6(1)]~~ **Testing Requirement to Validate Emission Factor**

~~The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the VOC limit specified in Condition D.2.1 and D.2.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.~~

Within 90 days after issuance of Minor Permit Revision No. 091-18823-00079, the Permittee shall perform testing of the five (5) Kurtz molding presses (installed in 2004) to validate the 0.0077 lb VOC emitted/lb beads overall emission factor used to determine the VOC emissions utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C- Performance Testing.